

NORTHROP EXHIBIT P

Cont
Results

M. Allen

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Notes (Signal back of several (not all) results photos with this pen (other (on front) was ~~was~~ permanent ink)

- PCR (HIV - MSP) worked well in integrated-heater devices, gel electrophoresis verified product. Some, but minimal Primase (esp. due to known fact that device reaction mixture cycled 1-2 times, then at R.T. for $\frac{1}{2}$ hr & prior to 20 cycles due to need to re-solder connections - new rxn mixture (30 μ l) was added)

- was able to extract ~100% of aqueous phase with 200 μ l (set at 30 μ l) pipette & load 5-6 wells of electrophoresis channel

(*) \rightarrow calculate power consumed in today's experiment compare to batteries

Other Discussion

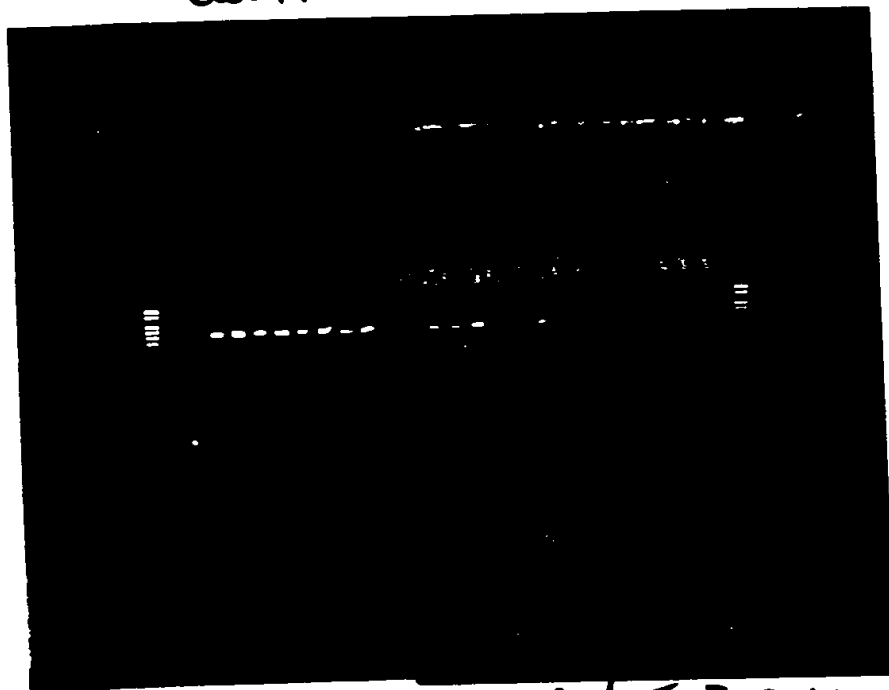
Last Tues w/ Ray Manilla
here (Cetus), along w/
Russ Higuchi, Bob Watson, Russ's
technician, myself we tried
homogeneous detection w/ video
CCD over 460 thermal cycles

- pulsed He -laser (ILEE laser company, Switz) was tried
- \rightarrow see LLNL Book (notebook)
for details

Cont
Results (photos)
Devia PCB results positive

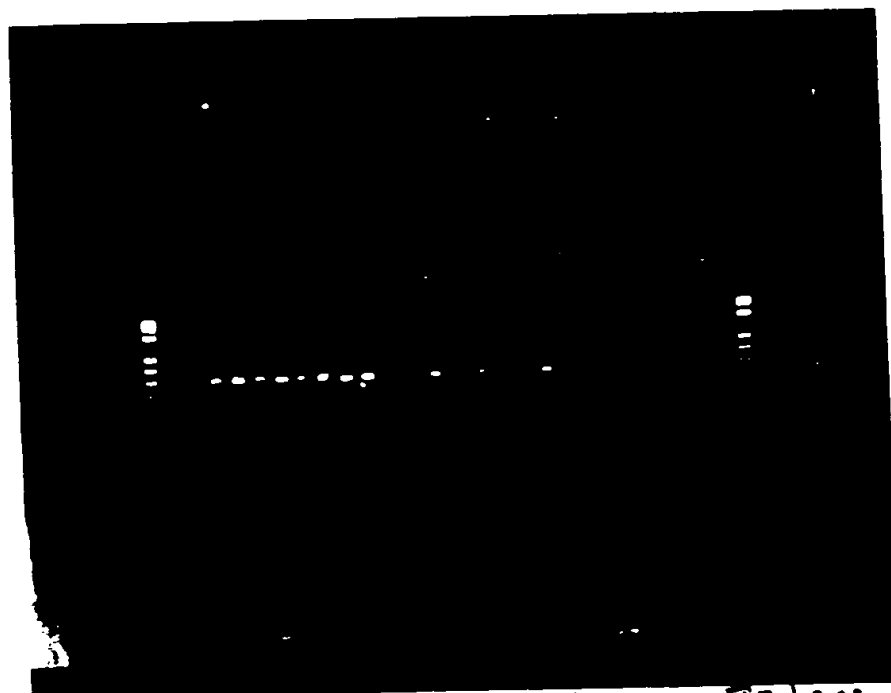
M. All ¹⁵

dedr. T = 15 min



M. All ^{T=24C}
_{4.6 > 200}

chert = 40 min



M. All ^{T=24C}
_{4.6 > 200}

taped recipe from
Watson
K

Rxn	50 pl 10x RM	2
pa		
R. Watson	50 pl 1mm dia TP	3
	50 pl M13	4
	10 pl 10x10 = 100 patches	5
	photo	
	10 pl photo	6
	2 1/2 pl 10x1.750/pcr 12.5	
	12.5/50 pl = 2.5	7
	← TMB	
	327.5 w20	9
<hr/>		
	500	

Cellus M. All

Try new PCR system
(more Temp forgiving)

142 bp product target as SS M13 from
gag-region of HIV

- 1) Starting target = 10^8 copies in 5 μ l
 $T = 96-55$ \downarrow 16-18 cycles
 (works at 88+) is plenty
- 2) primers

old names:	=	new names	
SK145	=	ph07	10 μ l/ μ l
SK431	=	ph08	

Reaction mixture: (500 μ l)

50 μ l 10x Buffer w/ MgCl
 " 1 mM dNTPs
 " M13 w/ gag region of HIV
 10 μ l = $10 \times 10 = 100$ pmoles

10 μ l (same for) $\frac{ph07}{ph08}$?

2 1/2 μ l = $10 \times 1.25 \mu$ l/ μ l 12.5
Tag

327.5 μ l H₂O

500 μ l total rxn volume

500.0
 -172.5

 327.5

M. All ~~ing~~

(cont)

1) re-use voltage (same device) as
on mach 30 (ie 3.17 V + 98°C)
at 0.2A

Do only 20 cycles

A) Standards

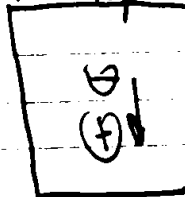
10, 10, 20, 20, 30, 30, 40, 40

~150 μ l oil (1-8)

B) Device 30 μ l w ~ 90 μ l oil

1-minute cycles at 3.17V
20-1 minute cycles (A-E) 0.2A

Electrophoresis



Std 1 2 3 4 5 6 7 8 9 10 A B C D E 4144

well-problem

~

1a) Had to re-solder device ^{wire connectors} after 2-cycles
fix time ~ 1/2 hour rxn was
at room temp

Results - ① failed product in both
stds and in wells
② well (and 1) std had
less bright primer - dimers
③ device provided ~6 - 5 μ l gel

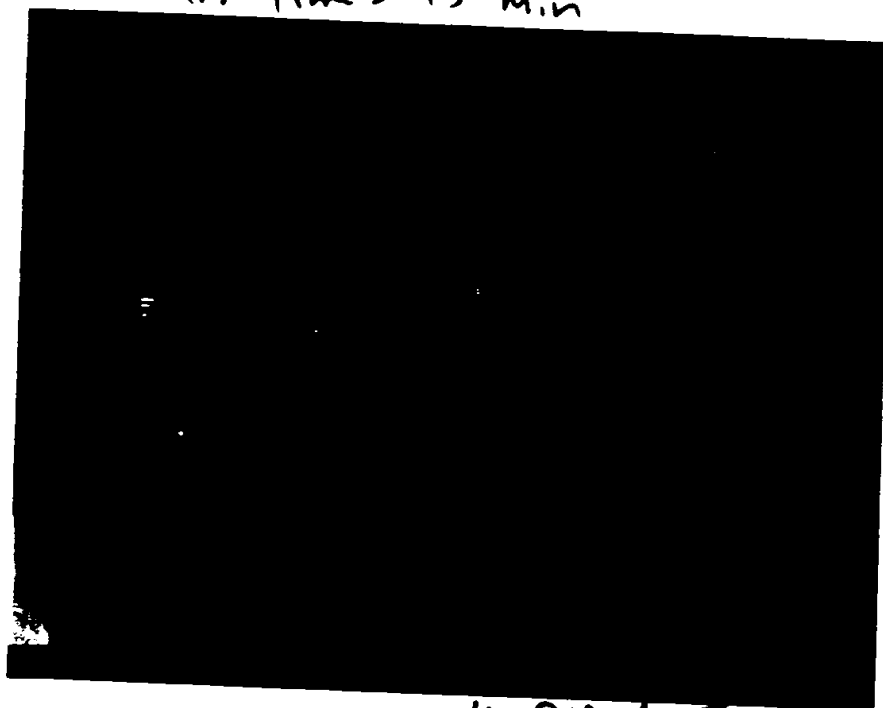
See next
2 pages:

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Cont results (photos)

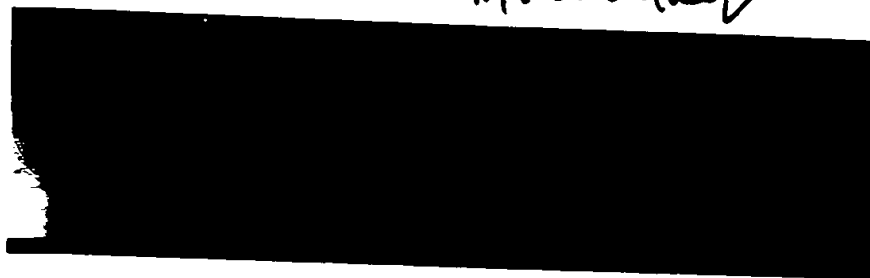
M. Allen

electr. Time = 15 min



T = 1 sec 4.6 3200

M. Allen



M

T = 1 sec 5.6 3200

*1 Loaned to Mike Ching